

CORRESPONDENCE

External Quality Assessment

It was very interesting to read Klys and Lessell's paper on EQA last month.¹ It is clear, though, that the East of Scotland scheme described is mainly to do with education, and little to do with audit. The preceding paper in the Journal, by GF Batstone,² laid down five key attributes of medical audit: the East of Scotland scheme fulfils only one of these five.

The published selection of cases from set 6 revealed that all the cases comprised uncommon or very rare entities. Furthermore, two of these cases were then described as "non-discriminatory" because everyone got them right! This is not at all what audit is about. To give an example, if pathologist A is right 99% of the time and pathologist B is right 99.8% of the time, it could be argued that either there was little to choose between them, or that pathologist B was five times better than pathologist A. Surely, medical audit ought to start off by setting standards and checking the quality of the service with regard to the 99% of the workload, rather than concentrating on the 1% which the East of Scotland scheme has done.

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1 Klys MS, Lessells AM. External Quality Assurance in histopathology: Experience of the East of Scotland scheme. *J Clin Pathol* 1992;45:288-91.

2 Batstone GF. Medical audit in clinical pathology. *J Clin Pathol* 1992;45:284-7.

Drs Klys and Lessells comment:

Dr Simpson criticises the content of our sample EQA set as being composed of very rare or uncommon entities. It is an all too common misconception in pathological circles that less common lesions are somehow not as important as common lesions. Due to the high turnover of cases seen, any pathologist will regularly and inevitably see unusual cases, which may be of great clinical importance. Each of our cases is derived from recent routine input to the participating laboratories, and several of these have presented considerable diagnostic challenges. Lack of knowledge could lead to serious consequences in any given case.

We have not included very common lesions as we have assumed a basic level of competence among consultant staff. We emphasise that the EQA should be complementary to other forms of audit and that it does not attempt to address all of the issues, even in the refined area of histopathological diagnosis. Ideally, an internal quality assurance system will operate in laboratories to review a sample of the routine workload.

We use the term "discriminatory" in relation to Item Difficulty (p value).¹ If any individual item in a test has a very high or very low value, it contributes little or nothing to the test in terms of distinguishing the abilities of individuals. It can only give limited information about the group as a whole.

In his paper Dr GF Batstone lays down five key attributes of medical audit culled from a variety of definitions of medical audit. Dr Simpson states that the East of Scotland scheme fulfils only one of these. Although he does not state which one, we assume he refers to number 3 (educational aspects). It is useful to remember that these are attributes rather than defining criteria. We would argue that the East of Scotland EQA scheme contains elements of all five key attributes. A more detailed analysis of the scheme can be found in our paper.

1 Schumacher CF. Scoring and analysis. In: Hubbard JP, ed. *Measuring medical education*. New York: Lea and Febiger, 1978:48-58.

Draft quality assurance for surgeons in breast cancer screening

One of the quality objectives listed in the NHS Breast Screening Programme (NHS-BSP) Draft Quality Assurance Guidelines for Surgeons¹ is that 80% of benign biopsy specimens should weigh less than 20 g (fresh or fixed weight). This variable does not yet appear on the current NHSBSP breast screening histopathology form for data collection. As we could find no data on breast tissue density we sought to determine if breast tissue, whether fibrous or fatty, varies in density.

Pieces of formalin fixed breast tissue were selected from mastectomy specimens, breast reduction tissue, and local excision biopsies. Breast tissue was classified as fatty, fibro-fatty, or predominantly fibrous macroscopically. Tissue containing mainly carcinoma was also included. Each piece was assessed for volume using a calibrated measuring burette containing formalin (accuracy to within 1 cm³). Each piece was then weighed on electronic scales (accuracy to 0.5 g) and the density calculated (table).

Weight and density of biopsy specimens examined

Tissue type	Number of biopsy specimens	Weight range (g)	Density range (g/cm ³)
Fatty breast tissue	5	6-45	0.9-1.1
Fibro-fatty tissue	5	6-48	1.0-1.1
Mainly fibrous tissue	5	12-40	1.0-1.1
Mainly carcinoma	5	4-12	0.9-1.15

The density of formalin fixed breast tissue does not vary by more than 15% from 1 g/cm³, which we found surprising and unexpected. Thus breast tissue density does not seem to be a significant confounding variable when using breast biopsy specimen weight as a surgical quality assurance variable.

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1 NHSBSP. Draft Quality Assurance for Surgeons in Breast Cancer Screening. London: NHSBSP Publication 20, 1991.

Drs CA Wells and JP Sloane, comment on behalf of the National Co-ordinating Group for Breast Cancer Screening Pathology:

We thank Drs Jones and Clarke for their simple but very useful study. The Group is presently redrafting the green booklet *Pathology Reporting in Breast Cancer Screening* and reassessing the data to be collected on the pathology reporting form. The Group had already decided to recommend that weight rather than dimensions should be recorded in the new version, partly because of the surgical quality assurance objective and partly because it was felt to represent a more reproducible way of recording specimen size. Variation in density due to the relative proportion of fat and fibrous tissue was considered unlikely to undermine significantly the value of weighing, but published data were not readily available.

The redrafting and printing of the updated booklet and form will, however, take about another year. If pathologists wish to record weight from now on, they could do so by entering it in the comments/additional information section.

Current views on cervical neoplasia

We were most interested to read the article by Anderson *et al.*¹ with its recommendations for reporting CIN. This was based on two days of discussions by an expert working party, convened by the British Society for Colposcopy and Cervical Pathology and sponsored by the National Health Service Cervical Screening Programme National Co-ordinating Network. The article, although cogently argued and well illustrated, dismayed us by coming to conclusions based on personal opinions, and by disregarding the only practical and objective evidence on the subject based on the systematic analysis of the practice of experienced histopathologists.

In 1989 two independent groups published work on this subject. The larger was a Scottish group² which examined the consistency of histopathological reporting of cervical punch biopsy specimens and was organised from Dundee. The other was an Anglo-Welsh group co-ordinated from Cardiff and with identical aims.³ In both of these studies many (12 Scots, eight Welsh) well informed histopathologists, having reviewed the diagnostic criteria, attempted to report on 100 consecutive punch biopsy specimens and the results were analysed using κ statistics. In the case of the Scottish group this process took well over a year. Kappa statistics were used because it was appreciated that there was no definitive or objective "correct" answer. These two groups were entirely unaware of each other's activities and, by complete chance, both published their results in March 1989.

The conclusions of both groups were uncannily similar. Both reported that CIN 3 and invasive carcinoma could be diagnosed with a high degree of confidence, but also that CIN I could not be reliably distinguished from other low grade abnormalities of the cervical squamous epithelium (virus, metaplasia, inflammation, etc). Each of these groups, also completely independently, suggested that the CIN I, II and III grading should be simplified into high and low categories. Interestingly, Richart, the originator of the CIN system, himself now suggests